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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,120	09/18/2006	Hamid Hojaji	129843-1180 (HARD1.088A)	9389
60148 7590 06/01/2009 GARDERE / JHIF GARDERE WYNNE SEWELL, LLP 1601 ELM STREET SUITE 3000 DALLAS, TX 75201			EXAMINER ABU ALI, SHUANGYI	
			ART UNIT 1793	PAPER NUMBER
			MAIL DATE 06/01/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,120	Applicant(s) HOJAJI ET AL.	
	Examiner SHUANGYI ABU ALI	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/09/2008, 09/18/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10-12 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 10-12 and 14, the phrase "predetermined" or "pre-selected" renders the claim indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3 -4 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 64-083542. (abstract and specification)

Regarding claims 1 and 15, JP'542 disclose a process of accelerating the setting of the Portland cement by kneading the cement with an aqueous solution comprising carbon dioxide or carbonated water (an accelerator) at a desired temperature. In this case the water is the carrier, which has the ability of accelerating the cement hydration reaction. (Abstract)

Regarding claim 3, the teaching of JP'542 is silent about the carbonate water speeds up the cement hydration reaction by a combination of alkaline activation and carbonation, .however, effect of the carbonated water is determined by the constituents of the composition, the claimed effect of the accelerator would be inherent to that of teaching of JP'542. See MPEP 2112

Regarding claim 4, the carrier is water.

Claims 1, 3-4, 8-11, 12, 15-16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 59-88387.

Regarding claims 1, 4, 8, 16, and 18, JP'387 discloses a process of converting the surface of a cement article by contacting it with carbonated water. The cement article is made by using Portland cement. Water is the carrier and carbon dioxide is incorporated into the water. In this case the water is the carrier, which has the ability of accelerating the cement hydration reaction. (Abstract)

Regarding claim 3, the teaching of JP'387 is silent about the carbonate water speeds up the cement hydration reaction by a combination of alkaline activation and carbonation, .however, effect of the carbonated water is determined by the constituents of the composition, the claimed effect of the accelerator would be inherent to that of teaching of JP'387. See MPEP 2112

Regarding claims 9- 10 and 12, JP '387 discloses the cement article is contacted with the carbonated water on the surface, therefore the interior surface is free from carbonate water.

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Regarding claim 11, JP '387 discloses that the carbonate water can be sprayed on to the article surface.

Regarding claim 15, JP'387 discloses hat the reaction is carried out at a desired temperature.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8, 9-13 and 15-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,941,720 to Deford et al, in view of JP 59-88387.

Regarding claims 8 and 16, Deford et al. disclose a process of making a fiber cement composition, which can be used in the building material. The cement composition can be cured by carbonation.(abstract, col. 9, lines 31-41)

But they are silent that the fiber cement is treated with carbonate water, however, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to treated the fiber cement with the carbonated water, motivated by the fact that JP'387, also dawn to cement article, disclose that the cement article treated with carbonated water has good chemical resistance (abstract).

Regarding claims 9- 10 and 12, JP '387 discloses the cement article is contacted with the carbonated water on the surface, therefore the interior surface is free from carbonate water.

Regarding claim 11, JP '387 discloses that the carbonate water can be sprayed on to the article surface.

Regarding claim 13, Deford et al. disclose that the cement composition can be cured by carbonation followed by autoclaved

Regarding claim 14, JP'387 discloses that the carbonated water is selected based on the cement composition to be coated. (table 1 and 2).

Regarding claim 15, JP'387 discloses that the reaction is carried out at a desired temperature.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over 64-083542, in view of U. S. Patent Application Publication No.2004/0028904 to Park.

Regarding claim 5, J P'542 disclose a process of accelerating the setting of the Portland cement by kneading the cement with an aqueous solution comprising carbon

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dioxide or carbonated water at a desired temperature. But they are silent that amine such as triethanolamine is used in the process.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use , motivated by the fact that Park, also drawn to cement composition, disclose that the accelerator such as the mixture of ethanolamine and carbon dioxide is used to rapidly manufacturing the cement composition([0040]).

Claims 1-4 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 4,069,063 to Ball, in view of U. S. Patent No. 5,385,764 to Andersen et al.

Regarding claims 1-2, and 4, Ball discloses a process of treating cement with carbon dioxide. The cement composition comprises of water, Portland cement and aggregates. (claims)

But they are silent that the carbon dioxide is in water.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use carbon dioxide and water to treat the cement composition, motivated by the fact that the Andersen et al., also drawn to cement composition, disclose carbon dioxide gas or carbon dioxide and water can react with the cement.

Regarding claim 3, combined teaching of Ball and Andersen et al. are silent about the carbonate water speeds up the cement hydration reaction by a combination of alkaline activation and carbonation, .however, effect of the carbonated water is

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determined by the constituents of the composition, the claimed effect of the accelerator would be necessarily followed from the combined teaching of Ball and Andersen et al.

Regarding claims 6-7, Ball disclose the cement composition can be slurry or paste(examples).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHUANGYI ABU ALI whose telephone number is (571)272-6453. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/J.A. LORENZO/

Supervisory Patent Examiner, Art Unit 1793

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